

Figure 1

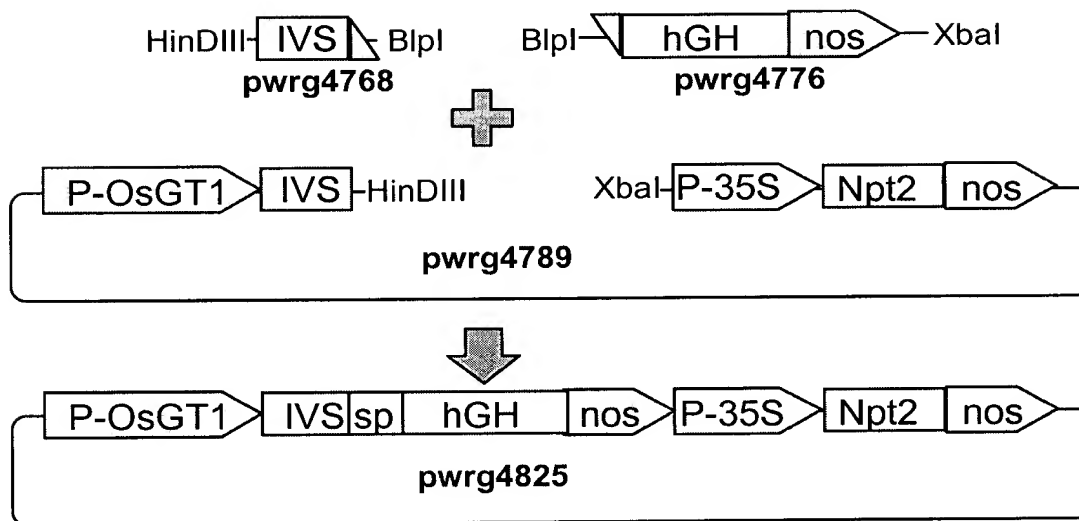


Figure 2

plasmid pwrg	promoter	5' UTR	intron	signal	coding region	terminator	selection
4738	35S	EXT	-	EXT	MAFPT	NOS	
4741	35S	EXT	-	EXT	MAFPT	NOS	kanamycin
4744	35S	DSSU	-	-	MAFPT	NOS	
4747	eFMV	petHSP70	-	CTP2	MAFPT	NOS	
4751	35S	EXT	ZmHSP70	EXT	MAFPT	NOS	
4757	e35S		ZmHSP70	CTP2	MAFPT	NOS	
4776	35S	EXT	-	EXT	FPT	NOS	
4803	35S	EXT	-	EXT	FPT	NOS	kanamycin
4805	35S	EXT	-	EXT	FPT	NOS	GUS
4809	7S	EXT	-	EXT	FPT	NOS	GUS
4825	OsGT1	GT1	ZmHSP70	EXT	FPT	NOS	kanamycin
4827	7S	EXT	-	EXT	FPT	NOS	glyphosate
4834	35S	DSSU	-	yeast ubiquitin	FPT	NOS	
4852	7S	EXT	-	EXT	FPT	NOS	glyphosate
4857	35S	potato ubiquitin	-	potato ubiquitin	FPT	NOS	
pmon 41324	e35S	soy HSP 17.9	-	soy oleosin	FPT	NOS	

Figure 3

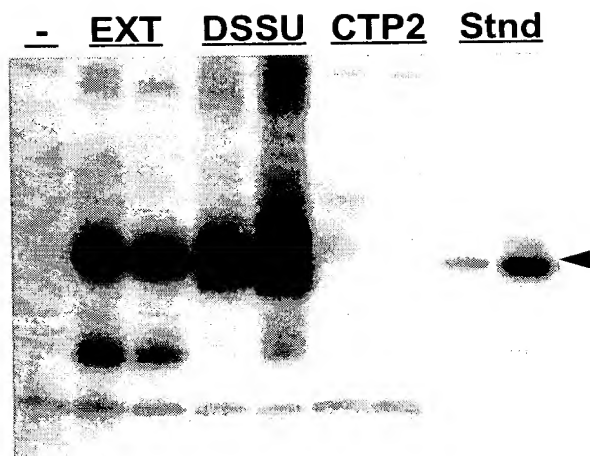


Figure 4

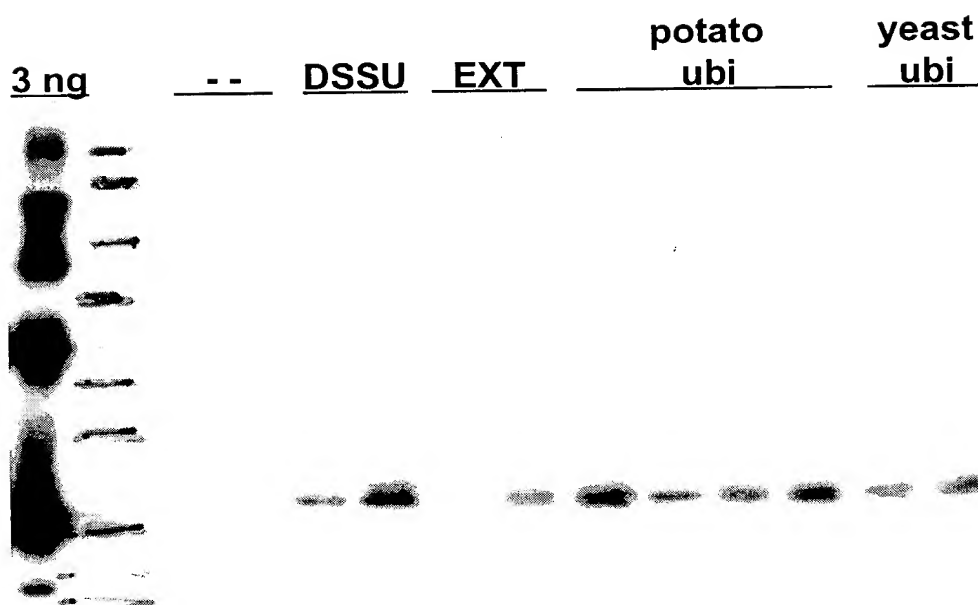


Figure 5

100 90 80 70 60 50 40 30 20 10

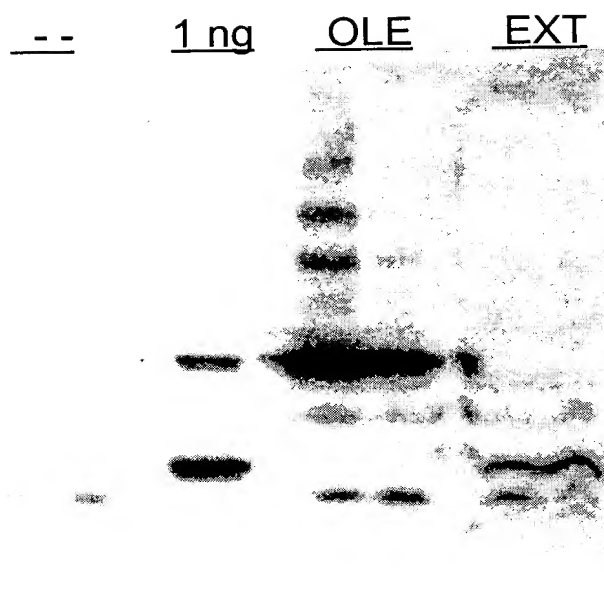


Figure 6

Plasmid pWRG	promoter	method	marker	# plants	# marker ⁺	# hGH ⁺	%TSP
4805	P-35S	GUN	GUS	4	2/4	1/4	0.0008
4809	P-7S	GUN	GUS	9	3/9	0/9	nd
4827	P-7S	AGRO	CP4	10	8/10	3/10	low
4852	P-7S	GUN	CP4	34	26/34	0/34	nd

Figure 7

Plasmid pWRG	target	CALLI		SUSPENSION CELLS					
		# pos/ # tested	max %tsp	avg % tsp	# pos/ # tested	max cell %tsp	avg cell % tsp	max media mg/L	max media %tsp
4738	secrete	15/34	0.086	0.029	5/5	0.004	0.003	0.1	not tested
4741	secrete	25/32	not tested	not tested	14/18	0.104	0.04	0.7	0.4
4744	cytosol	36/40	0.1	0.023	9/10	0.275	0.05	not tested	not tested
4747	plastid	9/40	0.038	0.021	3/4	0.041	0.02	not tested	not tested
4803	secrete	34/45	1.21	0.024	19/20	0.688	0.14	0.7	0.5

Figure 9

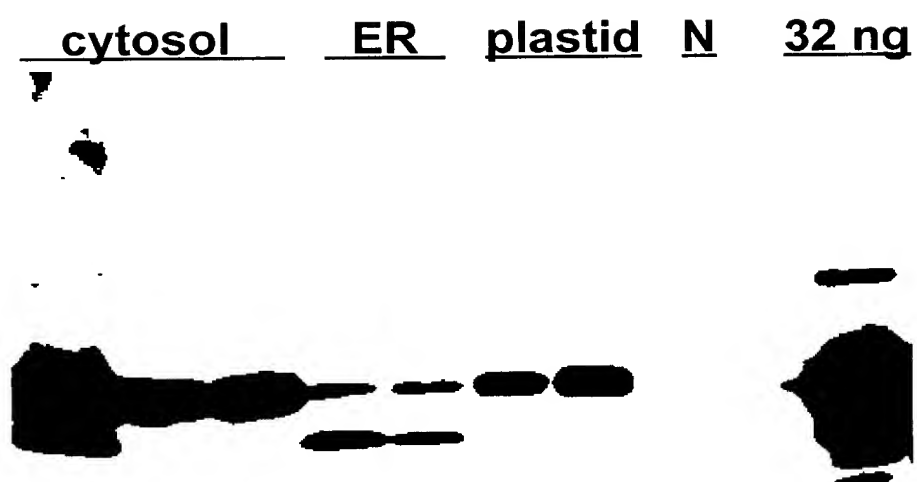


Figure 10

pwr	targeting	# pos/ # tested	max %tsp
4744	cytosol	9/23	0.125
4747	plastid	6/15	0.025
4776	secrete	2/4	0.008

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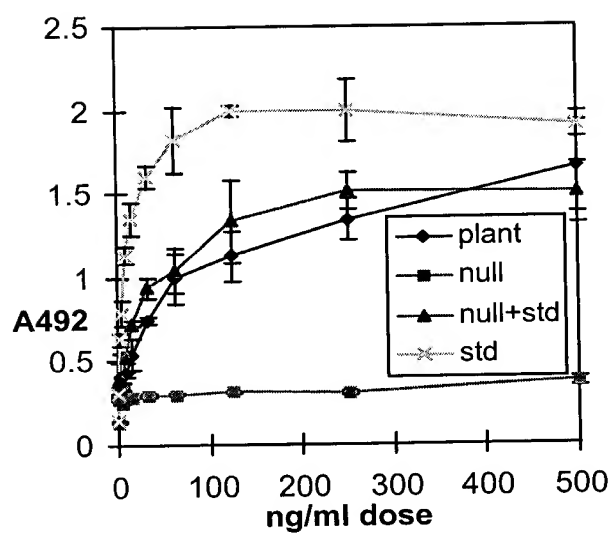


Figure 12

event Number	Ear Number	1 st generation			2 nd generation		
		cross	seed % tsp	± SD	ratio	seed % tsp	± SD
35	Q026764	self	2.86	0.77	17:2	5.0	1.4
35	Q026766	self	1.02	0.54	10:3	6.5	
59	Q026979XH99	outcross	2.09	0.003	14:14	3.3	
22	Q026750XH99	outcross	0.89	0.16	4:3	nd	
66	Q027042	self	1.30	0.22	72:21	5.8	2.5
27	Q026782*	self	1.9	0.67	6:0	2.2	
27	Q026783*	self	1.27	1.08	16:1	2.0	

Figure 14

0.5
ng independent transgenic first generation seeds

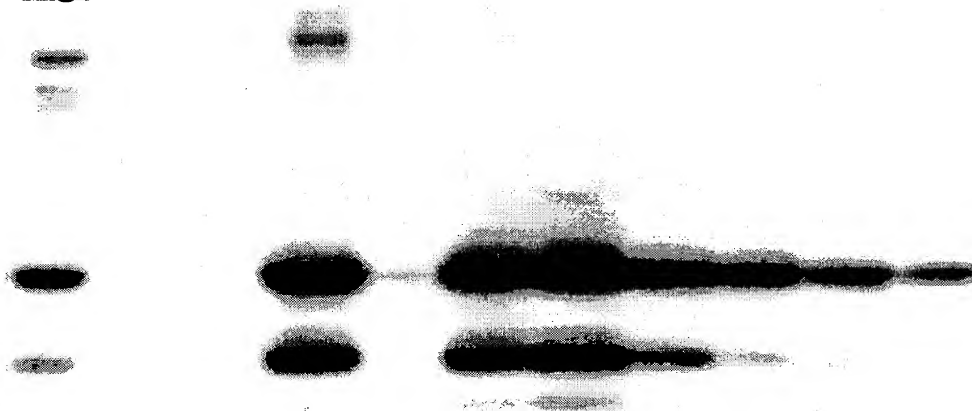


Figure 15

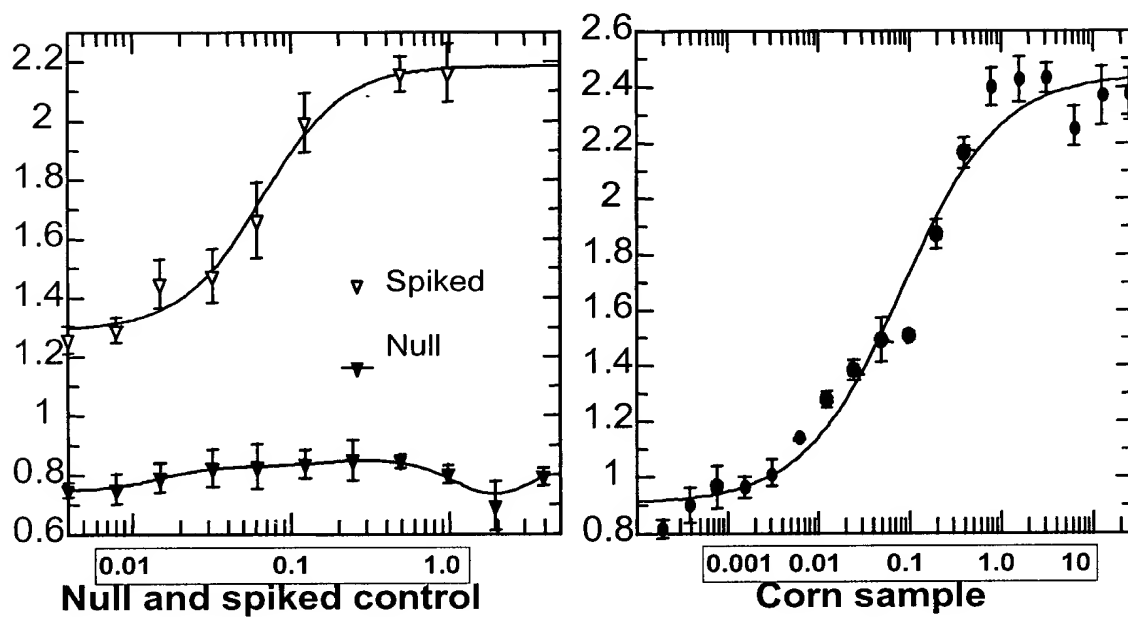


Figure 16

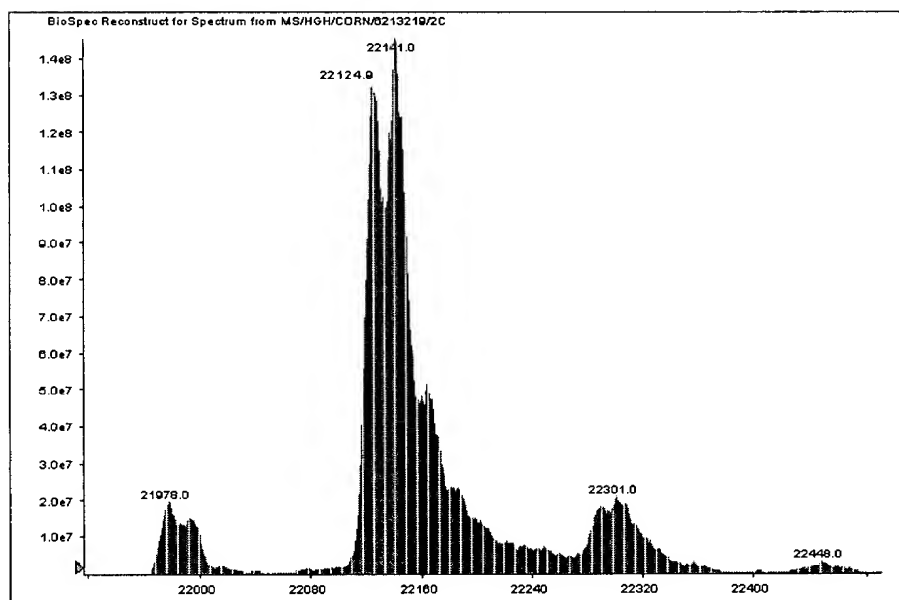


Figure 17A

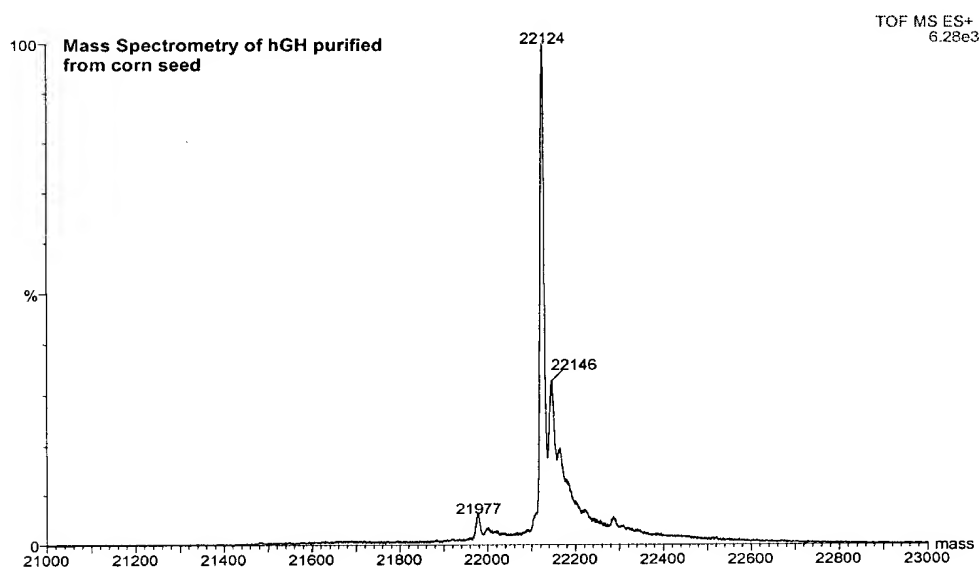


Figure 17B

1000 900 800 700 600 500 400 300 200 100 0

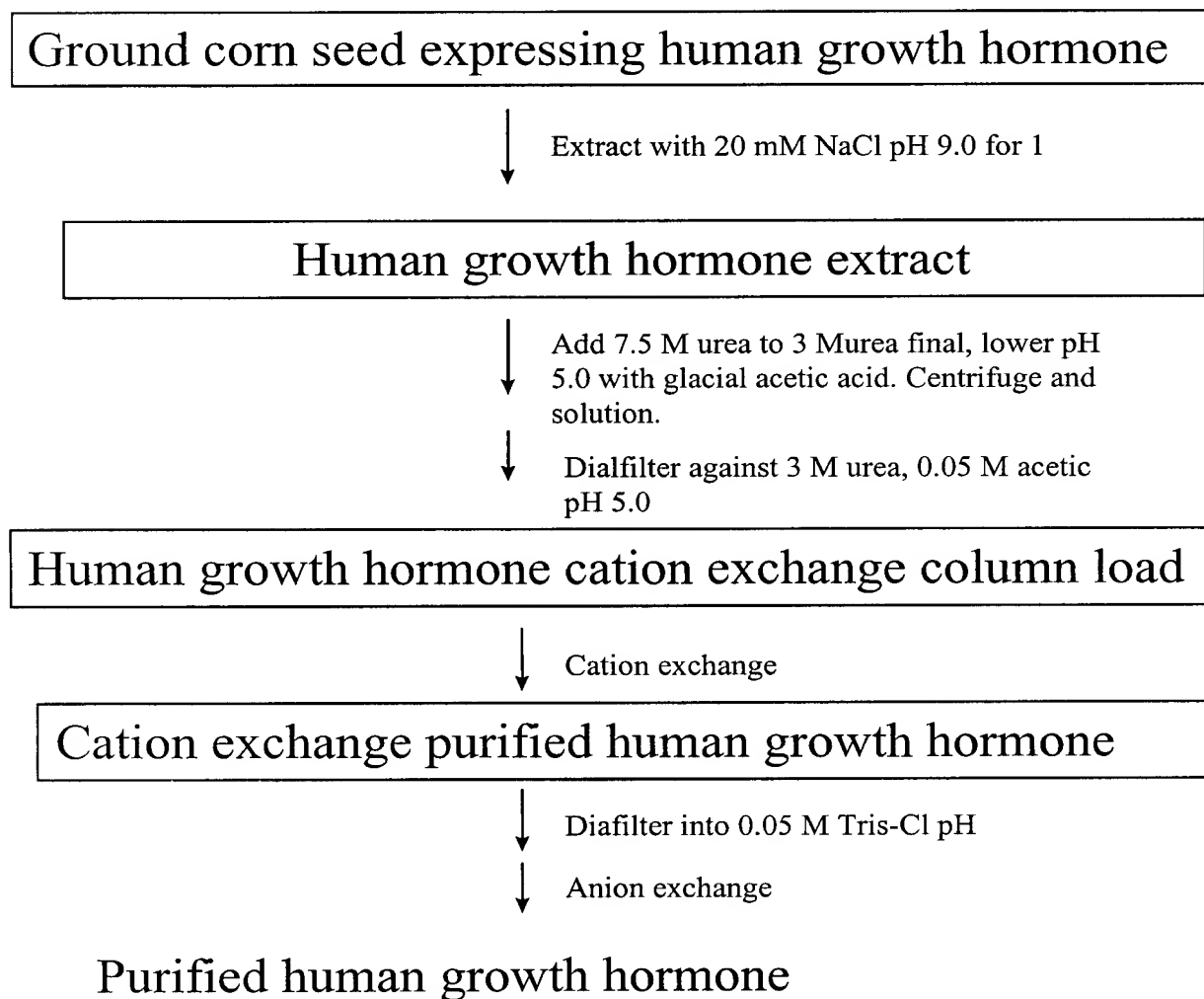


Figure 18

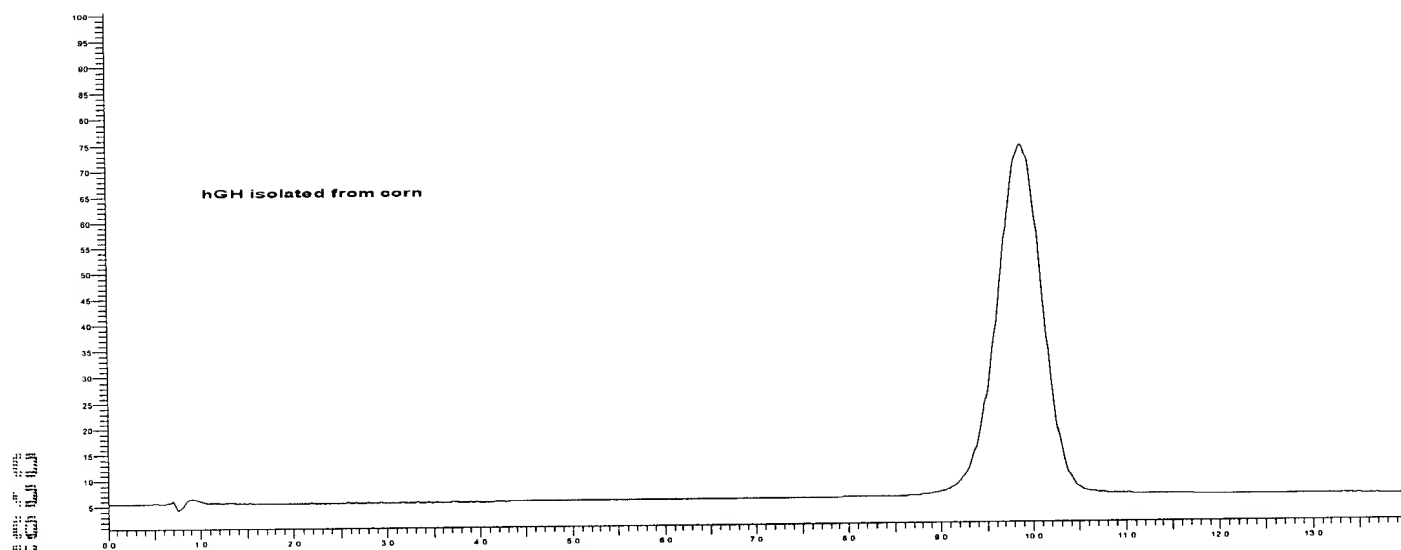


Figure 19A

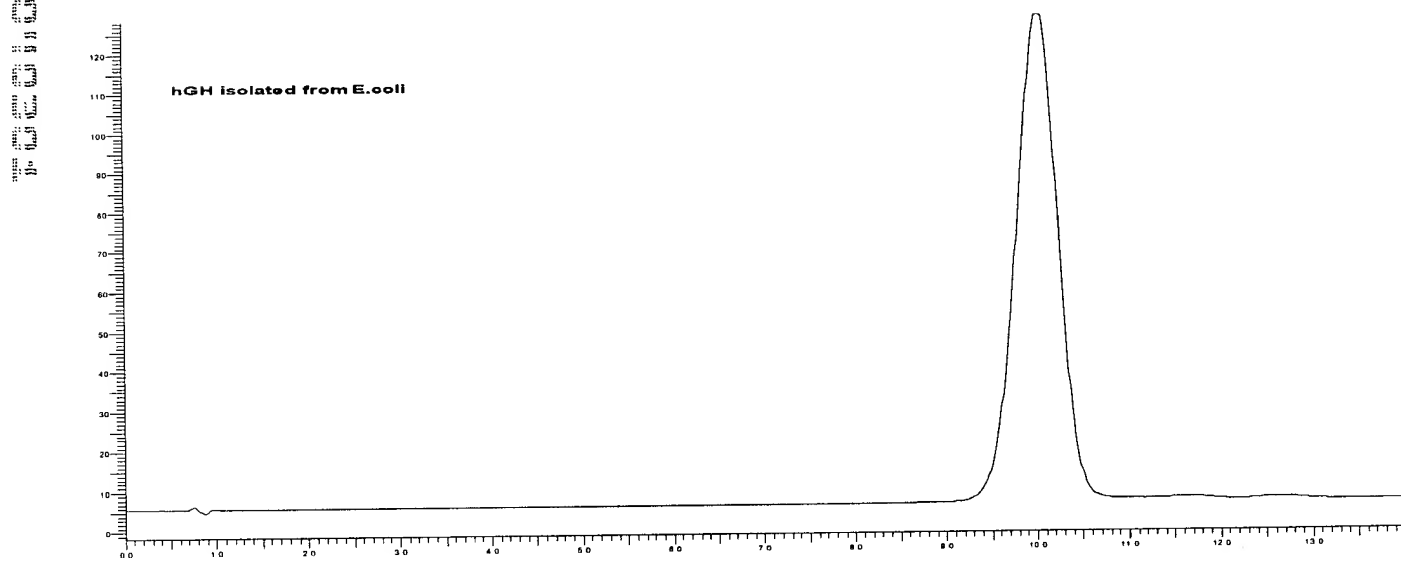


Figure 19B

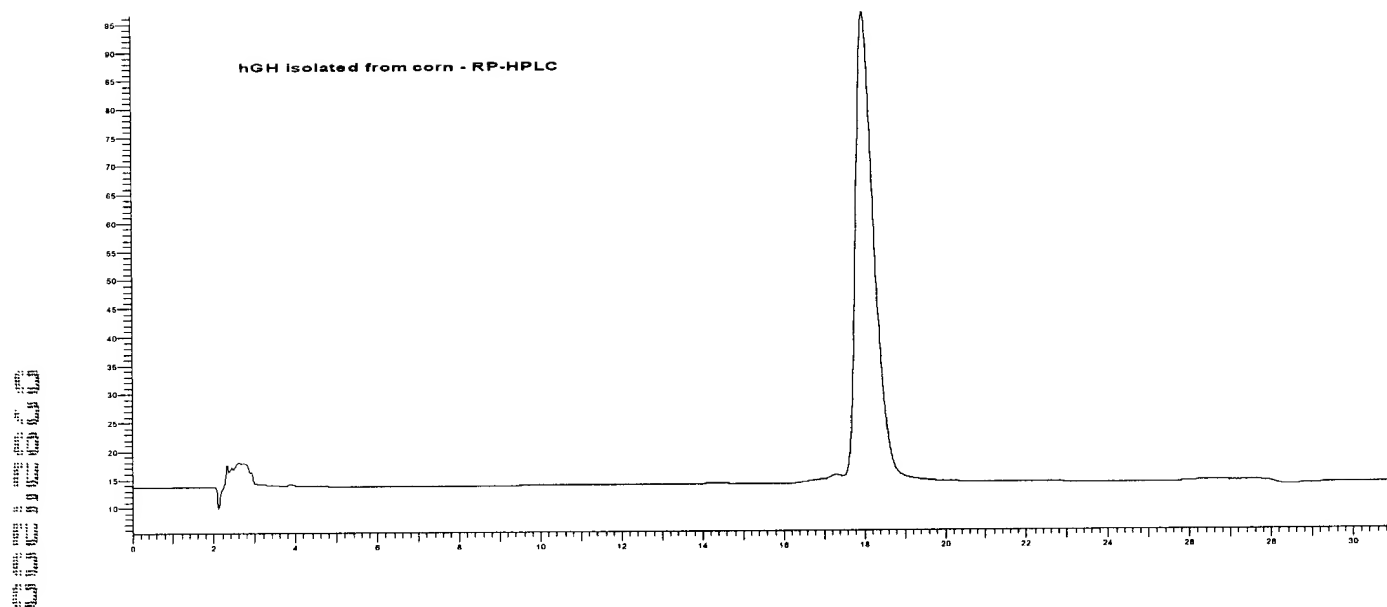


Figure 20A

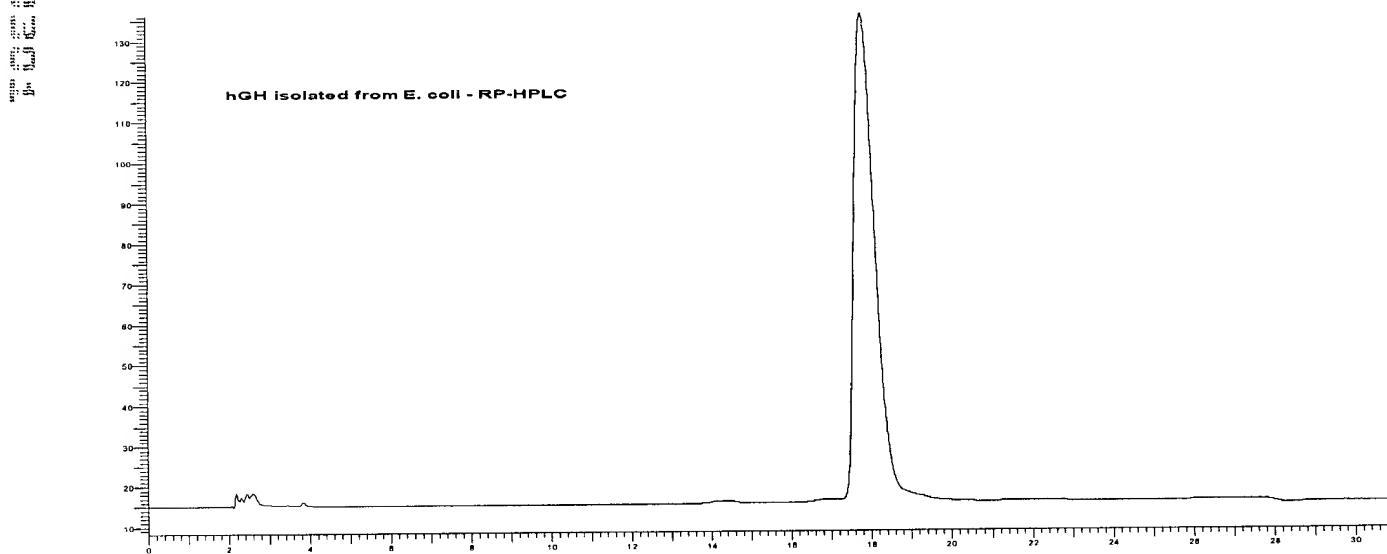


Figure 20B

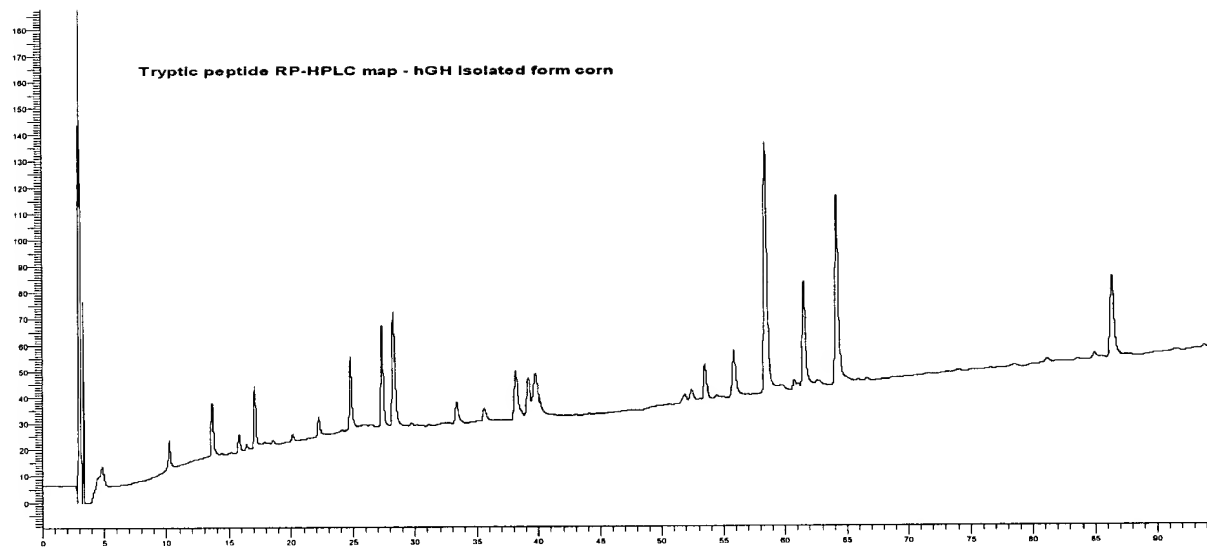


Figure 21A

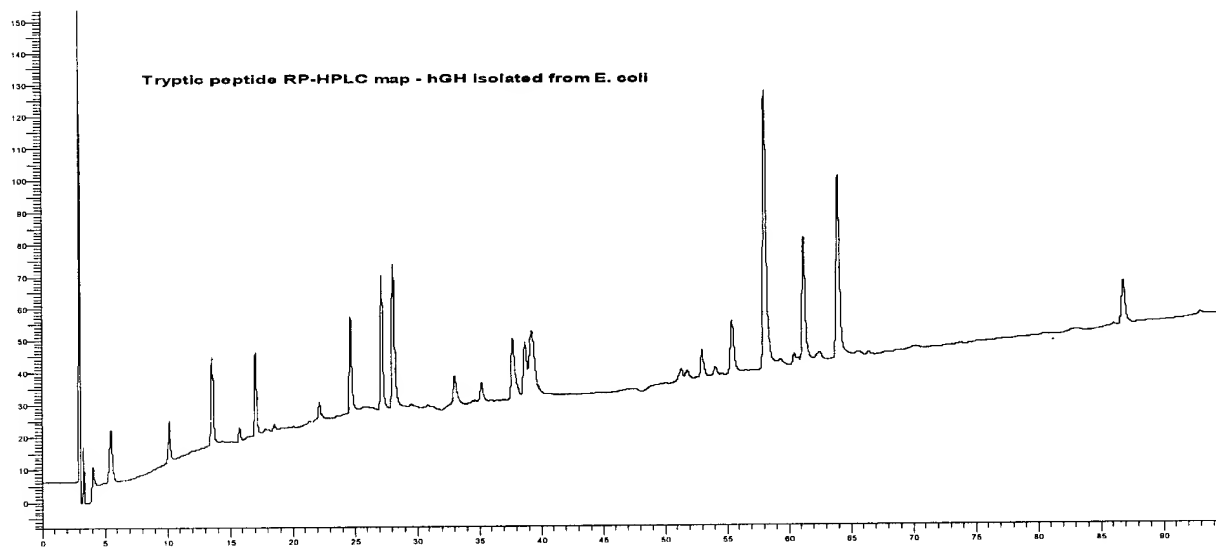


Figure 21B

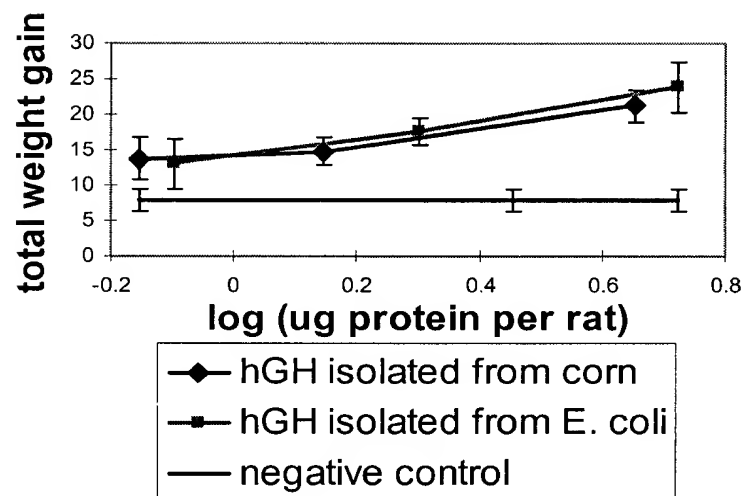


Figure 22

plasmid pwrg	promoter	UTR	intron	signal	coding region	terminator	selection
4740	35S	EXT	-	EXT	mat	NOS	
4743	35S	EXT	-	EXT	mat	NOS	kanamycin
4746	35S	DSSU	-	-	mat	NOS	
4749	eFMV	petHSP70	-	CTP2	mat	NOS	
4753	35S	EXT	ZmHSP70	EXT	mat	NOS	
4756	e35S	-	ZmHSP70	-	mat	NOS	
4759	e35S	-	ZmHSP70	CTP2	mat	NOS	
4763	35S	EXT	-	EXT	gpp	NOS	
4764	35S	EXT	-	EXT	gmt	NOS	
4765	35S	EXT-Cla1	-	EXT	gpp	NOS	
4766	35S	EXT-Cla1	-	EXT	gmt	NOS	
4767	35S	EXT	ZmHSP70	EXT	gpp	NOS	
4768	35S	EXT	ZmHSP70	EXT	gmt	NOS	
4769	35S	EXT	-	EXT	gpp	NOS	kanamycin
4770	35S	EXT	-	EXT	gmt	NOS	kanamycin
4810	35S	EXT	-	EXT	gmt- KDEL	NOS	
4816	35S	EXT	-	EXT	gmt- KDEL	NOS	kanamycin

Figure 23

soy hypocotyls corn leaves
N SP cyto N SP cyto CTP 2 20 ng



Figure 24

-- GMT Cla-
GMT GPP MAT 10
ng



Figure 25



Figure 26

Plasmid pWRG	Target	coding	N-terminus	#pos/ # tested	max cell %tsp	max mg/L
4746	cytosol	initial	MetAlaThr	<50%	<<0.04	0
4749	plastid	initial	MetAlaThr	0%	0.0	0
4740, 4743	secrete	initial	MetAlaThr	70%	0.04	<5
4770	secrete	gmt	MetThrPro	76%	0.04	<3
4769	secrete	gpp	MetThrPro	73%	0.02	<1.6
4816	secrete	gmt- KDEL	MetThrPro	90%	not tested	0
4826	secrete	nsi	MetThrPro	78%	not tested	not tested

Figure 27

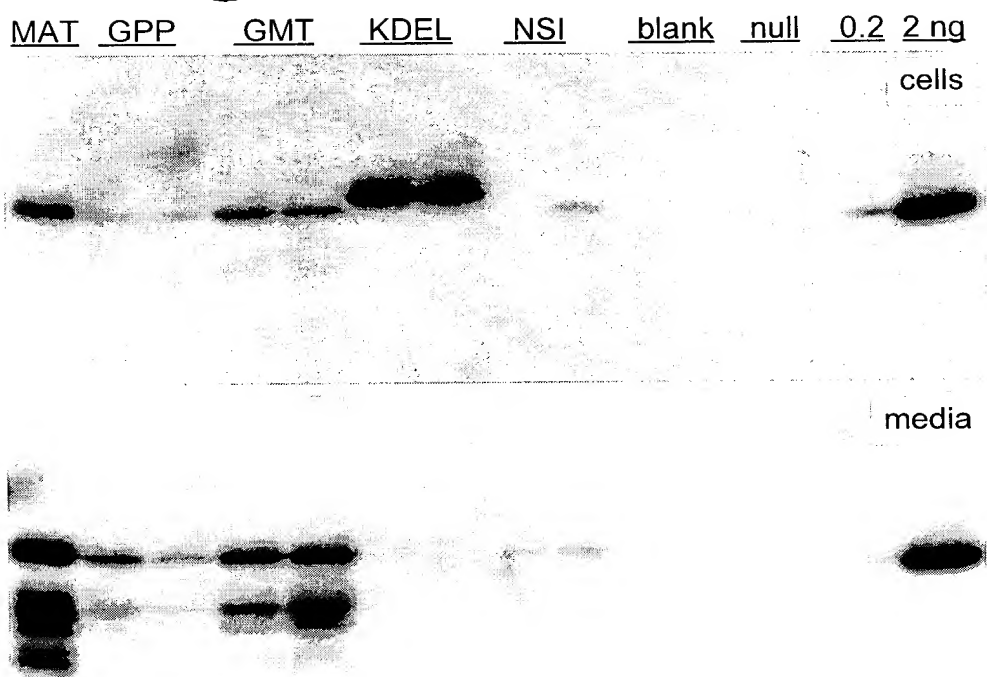


Figure 28

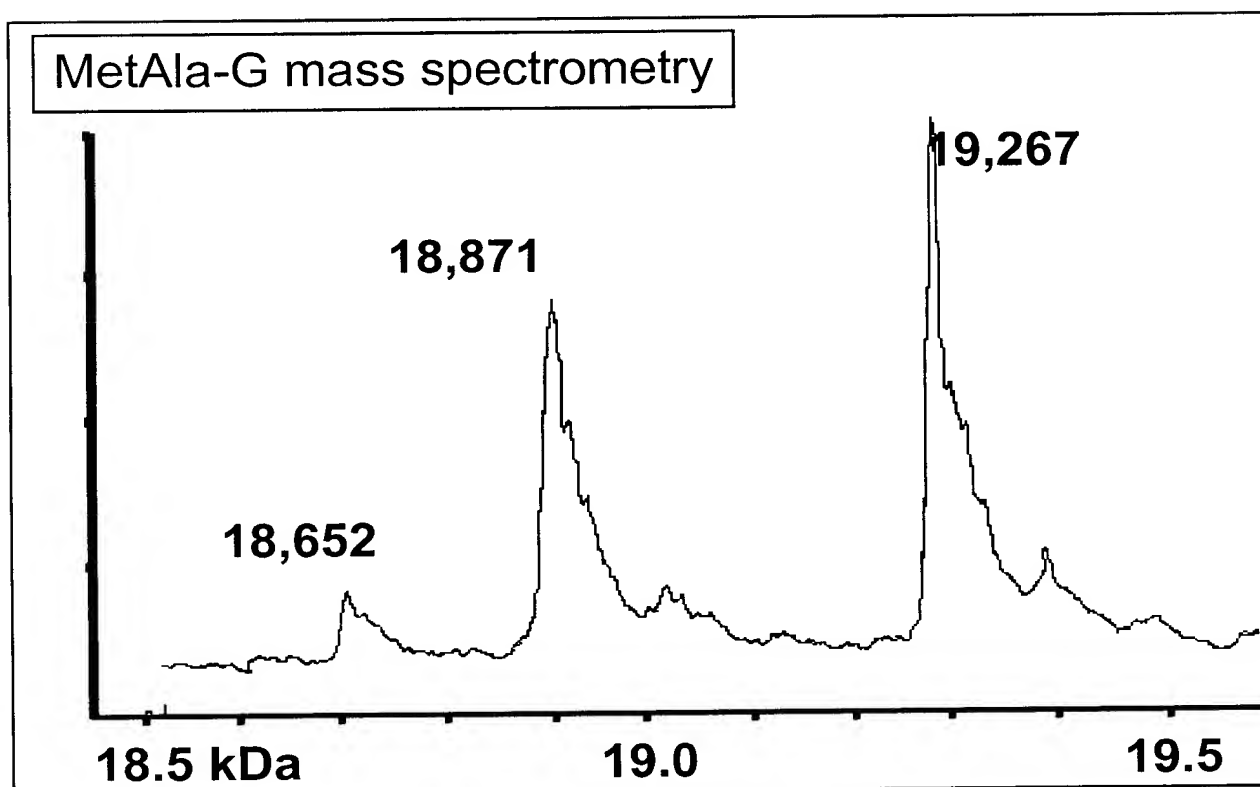


Figure 29

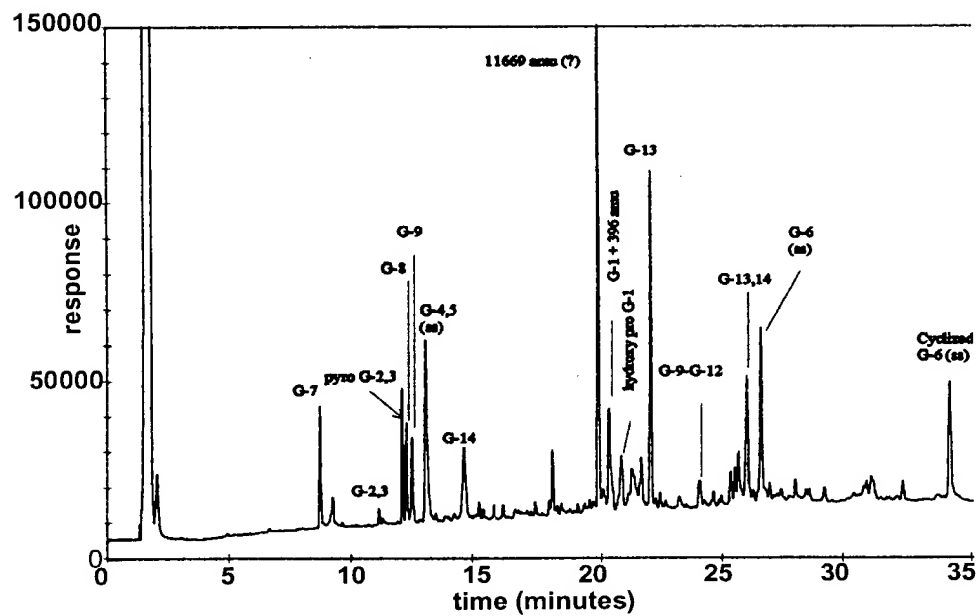


Figure 30

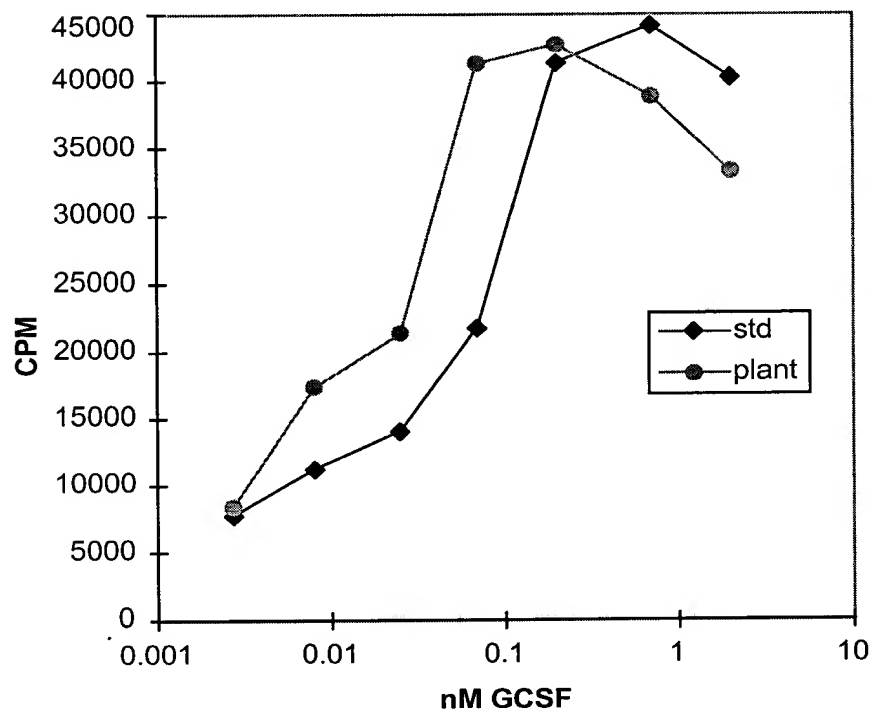


Figure 31